

IN THE CLAIMS:

1. (Currently Amended) An industrial robot including at least one linkage device in which pull rods are arranged in a multi-joint system where the joints include three-axle ball and socket joints, wherein a bearing element is fixed so that the bearing element does not rotate in a housing in the socket of a joint, ~~the bearing element further includes friction-increasing means in the form of grooves arranged parallel with a central axis of the bearing element~~, the housing including a surface against which the bearing element abuts and the surface being provided with friction-increasing means in the form of ~~complementary~~ grooves engageable with the ~~grooves provided on the~~ bearing element to increase friction between the surface and the bearing element, the grooves in the housing surface being arranged parallel with a central axis of the housing, the grooves engaging the bearing element to deform the bearing element and thereby prevent rotation of the bearing element in the housing, the grooves facilitating installation of the bearing element in the housing, and the grooves further facilitating removal from and replacement of the bearing element within the housing.

2. (Previously Presented) The robot according to claim 1, wherein the bearing element comprises an annular bearing element.

3. (Previously Presented) The robot according to claim 1, wherein the friction-increasing means is structured as to penetrate the bearing element effecting a permanent deformation.

4. (Cancelled)

5. (Previously Presented) The robot according to claim 1, wherein the bearing element abuts with the surface and is pressed thereagainst to fit tightly.

6. (Cancelled)

7. (Previously Presented) The robot according to claim 1, wherein the bearing element is comprised of a polymer material.

8. (Previously Presented) The robot according to claim 1, wherein the robot comprises a delta robot.

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) A method for eliminating risk of play in a three-axle ball and socket joint in an industrial robot, comprising the steps of providing at least one linkage device for the robot, the device having pull rods arranged in a multi-joint system where the joints each comprise the three-axle ball and socket joint, providing a socket of the joint with a housing to accommodate a bearing element, ~~providing the bearing element with friction-increasing means in the form of grooves arranged parallel with a central axis of the bearing element~~, providing the housing with a surface against which the bearing element abuts, fixing the bearing element such that the bearing element does not rotate in the housing, the fixing step being effected by providing the surface with friction-increasing means in the form of ~~complementary~~ grooves engageable with ~~the grooves provided on~~ the bearing element, and engaging the friction-increasing means with the bearing element when the bearing element is positioned in place, the

grooves in the housing surface being arranged parallel with a central axis of the housing, the grooves engaging the bearing element to deform the bearing element and thereby prevent rotation of the bearing element in the housing, the grooves facilitating installation of the bearing element in the housing, and the grooves further facilitating removal from and replacement of the bearing element within the housing.

13. (Previously Presented) The method according to claim 12, comprising the further step of pressing the bearing element to fit tightly in place in the housing of the joint socket.

14. (Previously Amended) The method according to claim 12, comprising the further step of deforming the material of the bearing element by permanent deformation by the friction-increasing means when the bearing element is placed in position.

15. (New) The robot according to claim 1, wherein the bearing element further includes friction-increasing means in the form of grooves arranged parallel with a central axis of the bearing element, the grooves on the surface of said housing being engageable with the grooves provided on the bearing element to increase friction between the surface and the bearing element.

16. (New) The method according to claim 12, comprising the further step of providing the bearing element with friction-increasing means in the form of grooves arranged parallel with a central axis of the bearing element, the grooves on the surface of said housing being engageable with the grooves provided on the bearing element to increase friction between the surface and the bearing element.

17. (New) An industrial robot including at least one linkage device in which pull rods are arranged in a multi-joint system where the joints include three-axle ball and socket joints,

wherein a bearing element is fixed so that the bearing element does not rotate in a housing in the socket of a joint, the housing including a surface against which the bearing element abuts and the surface being provided with friction-increasing means engageable with the bearing element to increase friction between the surface and the bearing element, the friction-increasing means being configured to facilitate installation of the bearing element in the housing, the socket being shaped as one-half of a sphere or less so as to facilitate rapid pivotal movement of the linkage relative to the socket, the one-half of a sphere shape of the socket further facilitating removal from and replacement of the bearing element within the housing by enabling rapid disconnection of said ball and socket joint.

18. (New) The robot according to claim 17, wherein the friction-increasing means is structured in the form of grooves which penetrate the bearing element effecting a permanent deformation.

19. (New) The robot according to claim 17, wherein the robot comprises a delta robot.

20. (New) The robot according to claim 18, wherein the bearing element further includes friction-increasing means in the form of grooves arranged parallel with a central axis of the bearing element, the grooves on the surface of said housing being engageable with the grooves provided on the bearing element to increase friction between the surface and the bearing element.